

Tsunami® MP-10100S series

Extremely Secure Point-to-Multipoint Wireless Solution (Available in the USA only)



Enhance wireless security with Tsunami® MP-10100S series built in AES 256 capability

Proxim Wireless is a leader and an early innovator in wireless technology providing high-speed, long-range and mobile broadband wireless solutions.

The Tsunami® MP-10100S is an extremely secure version of the Tsunami® MP-10100, a very high throughput, high power, especially reliable and cost-effective, near-line-of-sight point-to-multipoint (PMP) wireless solution.

The Tsunami® MP-10100S supports the following features specifically for last miles access, video surveillance or mobility applications that need ultra secure very high-speed broadband wireless access:



Proxim WORP® - Combines network access control, data scheduling, advanced QoS and encryption to ensure highly efficient and secure data transmission.



Proxim ClearConnect™, a suite of interference mitigation technologies ensuring robust and reliable communications in high-density wireless deployments.



Proxim FastConnect™, mobility technology that delivers rapid hand-off between fixed base stations and moving vehicles to ensure uninterrupted broadband at speeds up to 295 km/h (185 mph)

World Class Performance

- Point-to-Multipoint system that delivers up to 866 Mbps data rate and covers distances up to 10 miles (16 km).
- Dual IPv4 and IPv6 stacks for transparent evolution to tomorrow's net works
- Triple level login with monitoring, simplified or advanced web interfaces.
- Built-in feature rich network protocols for bridging, routing and gateway functionality
- High Speed Mobility up to 185 mph (295 km/h)

Frequency Agnostic

- Operates in unlicensed bands from 4.900 to 5.925 GHz
- Flexible RF planning with 20, 40 and 80 MHz channel sizes

Near-Line-of-Sight and Advanced Features

- Features dual Gigabit Ethernet ports with PoE out to power other devices such as surveillance cameras or additional radios
- Performs deep packet inspection (DPI) to create unique and sophisticated service rules and tiered service classes with ease
- BSU redundancy (500 milliseconds switch over time) and Dynamic Channel Selection to ensure continuity of services whatever the conditions
- Spectrum analyzer to analyze frequency bands for interference, and select the best available channel

Carrier-Grade Solutions

- Implements AES 256 encryption and Radius authentication for the most secure outdoor wireless communications in the unlicensed frequency spectrum
- Utilizes Proxim's Wireless Outdoor Routing Protocol (WORP®), which prevents snooping, and features highly-secure remote management via SSL/TLS1.2, SSH and SNMPv3
- Features Ethernet ports with pass-through IEEE 1588v2 synchronization and support for 9k Jumbo frames

Product Line Compatibility

- Connects to all existing Tsunami® MP10100, MP-10100L, MP-8200, MP-820 and MP-830 products
- Fully integrates within ProximVision® Advanced Cloud Based Carrier Management System and Controller

PRODUCT MODELS

MP-10100S-BSU Tsunami® MP 10100 Base Station, AES 256, 867 Mbps, MIMO 2x2, Type-N Connectors
 MP-10150S-BS9 Tsunami® MP 10150 Base Station, AES 256, 867 Mbps, MIMO 2x2, 90° sector antenna
 MP-10100S-SUA Tsunami® MP 10100 Subscriber Unit, AES 256, 867 Mbps, MIMO 2x2, Type-N Connectors
 MP-10150S-SUR Tsunami® MP 10150 Subscriber Unit, AES 256, 867 Mbps, MIMO 2x2, 22 dBi panel antenna

PART NUMBERS

901-00294 MP-10100S-BSU-US
 901-00296 MP-10150S-BS9-US
 901-00295 MP-10100S-SUA-US
 901-00297 MP-10150S-SUR-US

INTERFACES

WIRED ETHERNET Two auto MDI-X RJ45 10/100/1000Mbps Ethernet (Port #1 with PoE in & Data, Port #2 with PoE out & Data)
 WIRELESS PROTOCOL WORP® (Wireless Outdoor Router Protocol)

RADIO & TX SPECS

MIMO 2x2:2
 MODULATION OFDM with BPSK, QPSK, QAM16, QAM64, QAM256
 FREQUENCY 4.900 – 5.925 GHz (Subject to Country Regulations)
 CHANNEL SIZE 80 MHz, 40 MHz and 20 MHz
 DATA RATE MCS 0 to 9 with Dynamic Data Rate Selection
 TX POWER Up to 28 dBm (dual chain)
 TX POWER CONTROL 0 - 27 dB, in 1 dB steps. Automatic TPC with configurable EIRP limit

	80 MHz	40 MHz	20 MHz
TX POWER	MCS0: 28 MCS9: 21	MCS0: 28 MCS9: 22	MCS0: 29 MCS8: 25
RX SENSITIVITY (Per=10%)	MCS0: -89 MCS9: -68	MCS0: -93 MCS9: -71	MCS0: -94 MCS8: -74
THROUGHPUT	Up to 672 Mbps	Up to 324 Mbps	Up to 137 Mbps

OTHER Dynamic Channel Selection (DCS) based on interference detection. Dynamic Frequency Selection (DFS) based on radar signature . Automatic Transmit Power Control (ATPC) with EIRP limit support.

ANTENNA

MP-10100S-BSU/SUA Two N-type Connectors with built-in Surge Protection
 MP-10150S-BS9 Integrated 2x2 MIMO 16dBi Dual Polarized 90 degree Sector Antenna
 MP-10150S-SUR Integrated 2x2 MIMO 22dBi Dual Polarized 1 foot Panel Antenna

MANAGEMENT

REMOTE Telnet and SSH, Web GUI and SSL, TFTP, SNMPv3
 SNMP SNMP v1-v2c-v3, RFC-1213, RFC-1215, RFC-2571, RFC-3412, RFC-3414, Private MIB
 OTHER Syslog, sFlow™ agent, SNTP and local time, Spectrum analyzer

SYNCHRONIZATION

Pass-through IEEE 1588v2 Ethernet Synchronization

SECURITY

ENCRYPTION AES 128 and AES 256
 AUTHENTICATION Internal MAC Address Control List, Radius based Authentication (with VLAN and QoS provisioning)

QoS

Asymmetric Bandwidth Control	Asymmetric UL/DL committed and maximum information rate per service flow
Packet Classification Capabilities	802.1p priority, IPTOS, VLAN ID, IP addresses, ports, Ethernet addresses, IP protocol, and EtherType
Scheduling	Best Effort, Real Time Polling Services

NETWORK

MODES Bridging, Routing (RIP v2 and IP tunneling)
 IP STACK IPv4 and IPv6 simultaneously
 GATEWAY FEATURES DHCP Server & relay, NAT with Std ALGs, PPPoE end point with Proxy DNS
 VLAN 802.1Q: Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging

POWER

INPUT	OUTPUT
36 to 57 VDC via Ethernet port1 (Power over Ethernet) 12 VDC via Access port Power should not be provided simultaneously on both ports	48 to 57 VDC – 25 Watt on Ethernet port2 (PoE – software controlled) 12 VDC on Access port

POWER CONSUMPTION

14 Watt typical, 17.5 Watt maximum

ENVIRONMENTAL SPECS

OPERATING TEMPERATURE	STORAGE TEMPERATURE	HUMIDITY, IP RATING	WIND LOADING
-40° to 60°C (-40° to 140° Fahrenheit)	-50° to 70°C (-58° to 158° Fahrenheit)	100% relative humidity, IP67	200 km/h (125 mph)

PHYSICAL SPECS

PRODUCT MODELS	DIMENSIONS PACKAGED (per unit)	DIMENSIONS UNPACKAGED (per unit)	WEIGHT (PACKAGED)	WEIGHT (UNPACKAGED)
MP-10100S-BSU/SUA	14.56 x 13.0 x 7.87 in (370 x 331 x 200 mm)	9.84 x 8.66 x 2.83 in (250 x 220 x 72 mm)	9.92 lbs (4.5 kg)	4.20 lbs (1.9 kg)
MP-10150S-BS9	18.46 x 7.05 x 21.57 in (469 x 179 x 548 mm)	14 x 14 x 3.40 in (370 x 370 x 85 mm)	13.67 lbs (6.2 kg)	7.27 lbs (3.3 kg)
MP-10150S-SUR	14.56 x 13.0 x 7.87 in (370 x 331 x 200 mm)	12 x 12 x 3.40 in (305 x 305 x 85 mm)	10.91 lbs (4.95 kg)	5.30 lbs (2.4 kg)

SAFETY STANDARDS

UL 60950, IEC 60950 (part -1 and -22)

CERTIFICATIONS

USA: FCC 90Y + 15E (UNII 15.247), Railway: EN 50155 + EN 50121 + EN 61000-6-4 + EN 61373 + EN 45545-2

PACKAGE CONTENTS

- One Tsunami® MP-10100S-BSU/SUA with two N-type surge protected connectors
Or One Tsunami® MP-10150S-BS9/SUR with integrated dual polarized antenna
- One power injector and country specific power cord
- One Connector weatherproofing kit (Includes all recommended weatherproofing material)
- One Wall / Pole mounting kit
- One Antenna alignment (RJ11) dongle
- One Grounding kit
- One Quick Installation Guide

MTBF & WARRANTY

MTBF over 250 000 hours & 2-year warranty with ServPak Extended Support available